



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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560,093

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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07/560,093 07/30/90 MORRISON

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EXAMINER

CHAN, E

ART UNIT

PAPER NUMBER

237

DATE MAILED:

06/04/91

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 7/30, 8/31/90 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948.       |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.                 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/>   |

Part II SUMMARY OF ACTION

1. ☒ Claims 69-72, 74-83 are pending in the application.

Of the above, claims 69 and 70 are withdrawn from consideration.

2. ☒ Claims 1-68 and 73 have been cancelled.

3. ☐ Claims are allowed.

4. ☒ Claims 71, 72, 74-83 are rejected.

5. ☐ Claims are objected to.

6. ☐ Claims are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_ Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_ has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

1. Applicants as per page 5 of their remark indicate that pages 56 and 57 of an amendment dated 6/13/88 in the grandparent application, are attached to the preliminary amendment to describe the circumstances for filing the substitute specification. However, no such pages are attached with applicants amendment. It is requested that such pages be enclosed in applicants' next transmittal.

2. Applicants are requested to submit drawing correction indicating the changes as shown in the revised drawings.

3. As indicated by applicants in their remark, applicants shall cancel claims 69-70 in response to the first Office Action because it is directed to a distinct invention as set forth in the grandparent application. Thus claims 69-70 will not be treated on the merit.

4. Applicants should provide the examiner with a copy of the information Disclosure Statement cited in the grandparent application.

5. Claims 71-72, 74-83 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device is not clearly and positively specified.

Moreover, the use of numerical reference in means plus function limitation make it difficult to ascertain the metes and bounds of the claimed invention. For example, it is unclear whether or not the claimed means is limited to what is described in the specification. As per claim 71, line 6 "capable of" is vague and indefinite. Claim 71, lines 8 and 10, the relationship between the processing means with the means operative on the branch instruction is unclear. It would appear that both means are for processing instruction. Claim 71, lines 7 and 12 fail to make clear the relationship of "information (IFT) with "time (IFT)". The above comments concerning claim 71 also apply to claims 72, 74-77 whenever applicable.

As per claims 78 and 79, it fails to make clear how the added information is utilized by other steps in the claim.

As per claims 79-83 "the branch instruction" lacks proper antecedent basis.

6. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102

of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

7. Claims 71, 72, 74-83 are rejected under 35 U.S.C. § 103 as being unpatentable over McDowell references in view of Freiman et al (3,343,135).

As best understood by the examiner, McDowell references teach a parallel processing system utilizing low level parallelism which teach or suggest many of the claimed features. It is unclear from the McDowell reference whether or not the branch instruction in McDowell is execute no later than the last instruction of a block of instructions. However, Freiman et al. as per column 3, lines 1-5 also teach or suggest the concept of determining the latest times during which a given instruction can be performed to optimize the utilization of the processors. One of ordinary skill in the art with McDowell and Freiman before him would have found it obvious to modify McDowell reference such that the branch instruction will be executed in parallel with the execution of the instruction in the basic block in order to optimize the utilization of the plural processors.

8. It is to be noted that the references cited in PTO-892 will not be furnished to applicants since they had been cited in the parent cases.

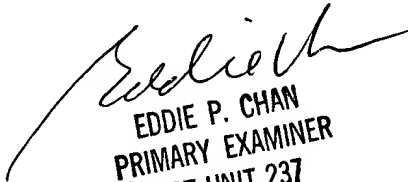
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Art Unit 237

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Chan whose telephone number is (703) 308-3096.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0754.

  
EDDIE P. CHAN  
PRIMARY EXAMINER  
ART UNIT 237

EPC/jrm  
May 24, 1991